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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

ART UNIT

PAPER NUMBER

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/053,040

Applicant(s)
Isao KUDO

Examiner
MICHAEL G. LEE

Group Art Unit
2876



Responsive to communication(s) filed on _____

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-20 _____ is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

☒ Claim(s) 1-20 _____ is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

☒ The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All Some* None of the CERTIFIED copies of the priority documents have been

☒ received.

received in Application No. (Series Code/Serial Number) _____

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Part III DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Specification

3. The abstract of the disclosure is objected to because of its minor informality:
Re the abstract, line 1. Substitute "According to the present invention, individual" with --
Individual --.
Correction is required. See MPEP § 608.01(b).
4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merlin et al (EP 0-589-732-A1).

Merlin et al teaches a semiconductor device 1 having some mark patterns thereon 20 for information management provided at each of chips arrayed on a wafer surface [11, 12, 13] as chip ID information wherein the chip ID information includes chip information inherent to each chip (see the English abstract; and the figures).

Re claims 1, 4, 7, 11, 14, and 16: Inasmuch as Merlin et al teaches of marking the wafer surface with one or more indicia, he is silent with respect to the ID information to be in a two-dimensional barcode pattern. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the indicia as taught by Merlin et al with a notoriously old and well known micro-two-dimensional barcode pattern(s) in order to record more data/information on the wafer surface for better inventory purposes. Accordingly, such modification would have been obvious extension for recording more data on the wafer surface as taught by Merlin et al, and therefore an obvious expedient.

Re claims 3 and 13: One of ordinary skill in the art at the time the invention was made to employ the conventional means for "chip ID information is projected and exposed using a liquid crystal mask that is capable of changing a light transmitting pattern for each exposure" to the teachings of Merlin et al in

order to provide Merlin et al with a more secure system/device wherein the ID information cannot be detected by a naked eye. Furthermore, to record ID information as discussed above would have been an alternative means for recording data/information on or onto the wafer surface and therefore and obvious expedient as taught by Merlin et al.

Re claims 4, 7, 14, and 16: Although, Merlin et al teaches the means for encoding the ID information on the wafer surface of the semiconductor device, he is silent with respect to means for providing ID information on a lead frame and/or outer surface of a resin-sealed semiconductor chip. However, one of ordinary skill in the art at the time the invention was made would have contemplated in placing/recording the ID information on a semiconductor device on each chip, either on the chip itself, on a lead frame, outer surface of resin-seal, and etc. due to the fact that such modification would have constituted an alternative means for placing/recording the two dimensional barcode patterns on a semiconductor device at different locations, and therefore would have constituted an obvious design variation, failing to provide any unexpected results, well within the ordinary skill in the art.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Shamir (US 5,118,369) and Aurenius (US 5,129,974) discloses means for labelling a micro-barcode on some semiconductor devices; and North et al (US 4,614,366) discloses means for labelling a micro-barcoding on a nail or the like.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Michael G. Lee** whose telephone number is (703) 305-3503. The examiner can normally be

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Applicant(s): Isao KUDO (235-462-81)

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Representative: Robert J. Frank (19,112)


reached between the hours of 6:30AM to 4:00PM Monday thru Thursday and every other Friday (first Friday of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald T. Hajec, can be reached on (703) 308-4075. The telephone number for this Group is (703) 308-5841 or (703) 308-7722.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.lee@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.


Michael G. Lee
Primary Examiner
SEPTEMBER 14, 1999